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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|--------------------------------|------------------------|
| 10/693,983 | 10/28/2003 | Bart Gerard Boucherie | BOUC3014/JEK | 3976 |
| 23364 7590 07/02/2007 BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314 | | | EXAMINER HUSON, MONICA ANNE | |
| | | | ART UNIT 1732 | PAPER NUMBER |
| | | | MAIL DATE 07/02/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/693,983 | BOUCHERIE, BART GERARD | |
| | Examiner | Art Unit | |
| | Monica A. Huson | 1732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1732

DETAILED ACTION

This office action is in response to the RCE filed 9 April 2007.

Claim Objections

Claim 2 is objected to because of the following informalities: It is believed that the word "placed" in line 2 is an error which should actually be --place--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 7-9, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen (U.S. Patent 5,030,406). Regarding Claim 1, Sorensen shows that it is known to carry out a method for manufacturing injection molding pieces comprising two components (Abstract) wherein a first injection molding piece is formed of a first component in a first mold impression (Figure 2, element 22) and a second injection molding piece is formed by putting the first injection molding piece in a second mold impression having a different size than the first mold impression and by providing a second component on the first injection molding piece (Figure 5, element 22; Figure 6, element 23), wherein a mold with at least three series of mold parts is used, namely a first series (Figure 2, element 4), a second series (Figure 2, element 6) and a third series respectively (Figure 2, element 5), wherein every series has at least one first

Art Unit: 1732

mold part which can form a wall for the first mold impression when forming a first injection molding piece, as well as at least one second mold part having a different size than the first mold part and which can form a wall for the second mold impression when forming a second injection molding piece (Figure 2, element 7, 15, 8, 9); wherein the first series of mold parts and the second series of mold parts can be alternately presented to work in conjunction with the third series of mold parts, in order to inject at least one first injection molding piece as well as at least one second injection molding piece in the mold impressions formed thereby when the first or second series of mold parts works in conjunction with the third series of mold parts (Figures 4, 6); and wherein, during the alternating presentation, a mutual repositioning of every first injection molding piece concerned is obtained, such that it ends up in the accompanying second mold impression (Figures 4, 6). Sorensen shows that it is known to change the shape of the cavities based on the desired end products (Column 6, lines 41-47). Therefore, It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form differently-shaped cavities for the first and second mold parts in each mold series to efficiently make as many composite articles as possible.

Regarding Claims 2 and 3, Sorensen shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein aforesaid repositioning is realized by changing the [place] of the first injection molding pieces after their production by removing them from a mold part with which they have been made into the other mold part which is part of the same series, wherein the first injection molding pieces are moved by means of a transfer part which is active between the mold parts of the series concerned (Column 5, lines 12-21), meeting applicant's claim.

Regarding Claim 7, Sorensen shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first series of mold parts and the second series of mold parts alternately cooperate with the third series of mold parts by a rotational movement whereby the first and second series are repositioned relative to the third series (Figures 4, 6; Column 5, lines 6-52), meeting applicant's claim.

Regarding Claim 8, Sorensen shows the process as claimed as discussed in the rejection of Claim 7 above, including a method wherein the aforesaid rotational movement is realized around an axis of rotation which is parallel to the closing direction of the mold parts concerned (Figures 4, 6), meeting applicant's claim.

Regarding Claim 9, Sorensen shows the process as claimed as discussed in the rejection of Claim 8 above, including a method wherein the third series of mold parts is created such that it cannot rotate, and in that the first series [and] the second series are rotated

Art Unit: 1732

around an axis of rotation situated outside the third series (Figures 4, 6: element 5=fixed, elements 4, 6=rotatable), meeting applicant's claim.

Regarding Claim 14, Sorensen shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein while the mold is being closed, at least one series of mold parts is kept outside the injection molding cycle (Figure 4), meeting applicant's claim.

Regarding Claim 15, Sorensen shows the process as claimed as discussed in the rejection of Claim 14 above, including a method wherein at the series of mold parts which is kept outside the injection molding cycle, at least a repositioning as mentioned above is realized (Figure 4), meeting applicant's claim.

Regarding Claim 16, Sorensen shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first series of mold parts and the second series of mold parts alternately work in conjunction with the third series of mold parts by making the first and the second series on the one hand and the third series on the other hand alternately carry out a translational movement (Figure 4), meeting applicant's claim.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen, in view of Boucherie (U.S. Patent 6,379,139).

Regarding Claim 4, Sorensen shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show leaving the mold first injection pieces when opening the mold on the mold part concerned of the first and second series. Boucherie shows that it is known to carry out a method including a method wherein said repositioning is realized by leaving the first mold injection pieces, after their production, when opening the mold, on the mold part of the first series in which they have been made and on the mold part of the second series in which they have been made respectively, and by making sure that, at the next co-operation of the first series with the third series and of the second series with the third series respectively, the mutual position of the mold parts of the first series in relation to the third series, and of the mold parts of the second series in relation to the mold parts of the third series respectively, is changed (Column 3, lines 3-45; Column 4, lines 1-6). Boucherie and Sorensen are combinable because they are concerned with a similar technical field, namely, methods of multistep molding using movable multicavity molds. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Boucherie's repositioning sequence during Sorensen's molding process in order to avoid the need for transfer mechanisms.

Art Unit: 1732

Regarding Claim 5, Sorensen shows the process as claimed as discussed in the rejection of Claim 4 above, including a method wherein the mutual position is changed by subjecting one or several of the first and second series of mold parts to a rotation, in particular in relation to a support upon which they have been provided (Column 5, lines 12-21), meeting applicant's claim.

Regarding Claim 6, Sorensen shows the process as claimed as discussed in the rejection of Claim 1 above, including making use of a first series and a second series whose mold parts assume opposite positions (Figure 1), but he does not show leaving the mold first injection pieces when opening the mold on the mold part concerned of the third series. Boucherie '139 shows that it is known to carry out a method wherein said repositioning is realized by leaving the first injection molding pieces after their making, when opening the mold on the mold part concerned of the third series (Column 3, lines 3-45; Column 4, lines 1-6). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Boucherie '139's repositioning sequence during Sorensen's molding process in order to avoid the need for transfer mechanisms.

Claims 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen, in view of Bodmer et al. (U.S. Patent 6,783,346).

Regarding Claim 10, Sorensen shows the process as claimed as discussed in the rejection of Claim 7 above, but he does not show rotation of the third series of molds. Bodmer et al., hereafter "Bodmer," show a method wherein use is made of a first series of mold parts and a second series of mold parts provided on a common supporting structure, whereby, from a general point of view, they are mutually situated at an angle with their land areas, and whereby the first series of mold parts and the second series of mold parts can alternately be placed opposite to the third series of mold parts by rotating the aforesaid supporting structure around an axis of rotation which extends according to the bisector between the aforesaid two land areas (Figure 1). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Bodmer's mold configuration during Sorensen's molding process in order to most effectively mold the most articles at one time, reducing overall operating costs.

Regarding Claim 11, Sorensen shows the process as claimed as discussed in the rejection of Claim 7 above, but he does not show rotation of the third series of molds. Bodmer shows a method wherein the third series of mold parts, in order to make them alternately work in conjunction with the first series and the second series, is rotated between the first series and the second series (Figure 1). It would have been prima facie obvious to one of ordinary skill in

Art Unit: 1732

the art at the time the invention was made to use Bodmer's relative rotation of the third series of molds during Sorensen's molding process in order to most efficiently mold the most articles at one time, reducing overall operating costs.

Regarding Claim 13, Sorensen shows the process as claimed as discussed in the rejection of Claim 11 above, but he does not show a split third series of molds. Bodmer shows a method wherein use is made of a third series of mold parts which is at least split, such that two or more third series are created, such that when the mold parts close at every injection molding cycle, a third series co-operates with the first series, just as another third series co-operates with the second series (Column 6, lines 4-10; Figures 1-2). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Bodmer's split third mold series during Sorensen's molding process in order to mold more articles at one time.

Allowable Subject Matter

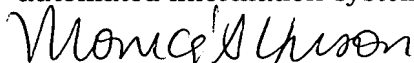
Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

June 21, 2007